MEDICAL PATHOLOGY AND THERAPEUTICS, AND PRACTICAL MEDICINE.

17. *Hemorrhagic Diathesis.*—Sir WM. JENNER read before the Clinical Society of London (Nov. 10th), an elaborate report of a case of hæmophilia, which had just terminated fatally under his care in University College Hospital, and made as the result of his extensive experience some interesting remarks on the pathology of that affection.

The case was a lad, aged thirteen, who was admitted on November 4, on account of hemorrhage from the bowel. He was known to be suffering from the hemorrhagic diathesis, having been several times in the hospital on account of severe hemorrhage from slight causes. He had also often suffered from spontaneous bleedings from the nose and mouth, and also from frequent swellings of the joints; of late, the left knee had been permanently affected. A brother of the boy also suffered from the same condition, but no other member of the family. On admission, the boy was pale and prostrate, with numerous subcutaneous ecchymoses and considerable swelling of the right thigh. The hemorrhage from the bowel, generally of dark blood, continued, in spite of an ergotin injection, and turpentine and acetate of lead by the mouth, employed before the boy was seen by Sir William Jenner, who ordered an injection of perchloride of iron into the rectum, and gallic acid to be given internally. The injection returned in ten minutes, but there was no more hemorrhage, although small stools were passed. The boy, however, became paler, weaker, and more restless, and died twenty-four hours after admission. At the post-mortem examination, blood was found in moderate quantity in each side of the heart, and the clots were firm. The lungs presented no consolidation, but many peculiar pale patches, sharply defined, a little raised, with some adjacent hyperæmia, containing air, fluid, and a little more solid than the adjacent parts. The lower part of the rectum contained a very firm clot, and all the blood had evidently come from the lower six inches, where the mucous membrane was undermined by extravasations which had broken through it. The liver and spleen were healthy. The left kidney was absent; its supra-renal body was disk-shaped. The right kidney was hypertrophied, weighed seven ounces, and presented traces of fœtal lobulation. The aorta was rather small but healthy, and the arteries and veins were also healthy in appearance. The enlargement of the right thigh was due to an enormous extravasation of blood beneath the fascia. The clot was two inches thick, and very firm. The left knee-joint was found to be full of purple blood and stringy synovia. The synovial membrane was stained an ochre-brown. The cartilages presented evidence of chronic inflammation. Sir William Jenner remarked that the case resembled, in its general features, several other cases which had come under his notice; resembled them, too, in the seats of the hemorrhage, in the character of the blood lost, and in the joint affections. The joint affections were of three kinds, and the boy suffered from the two forms which were most characteristic of the disease —spontaneous swelling, tenderness, and general puffiness of the joint, such as occurred in rheumatism; and swelling, the result of successive secretion, with hemorrhage, the result of a slight injury. In a rarer form sometimes seen in the disease, there was much simple effusion. The firmness of the clots in the heart and rectum illustrates the important fact that the blood in a case of hæmophilia, after death and during life, did not lose its power of coagulating firmly. The case lent no support to the view that the walls of the arteries were in these cases of abnormal thinness. In most of the cases Sir William Jenner had seen, the bleeding was venous, not arterial. The source of the blood, the lower part of the rectum, was a point of great practical importance, and so also was the firmness of the clot which was found—a firmness probably due to the effect of the perchloride of iron, the best local styptic in these cases. It was very doubtful whether death in this case resulted from the hemorrhage from the bowel; the extravasation into the thigh probably assisted, and the peculiar state of the lungs and bronchial tubes might have been the immediate cause of death.

The points in the pathology of this disease, which have been impressed upon him by the cases he has seen, are: 1st. That the tissues are all soft, so that they bruise easily. 2d. That the blood is rather *slow* in coagulating, but its coagulum, when formed, is as firm as in health. 3d. That blood is formed rapidly; that there is a tendency to plethora of the smaller vessels, and he had frequently observed that when the patient was looking his best is the moment when injuries have the worst effect, and spontaneous hemorrhages are the most likely to occur. With regard to the etiology, it was not always possible to trace back the disposition to the ancestors. He had seen cases in families, where the ancestry could be traced for generations, where no history of hemophilia in relations could be got; but when once developed it has often affected more than one member of the family. Sir William Jenner has known it transmitted by a daughter, who was not herself the subject of the disease. In this boy's parents, and in their relatives, no hemorrhagic tendency existed; there was instead only some disposition to phthisis. The present was, he believed, the only case in which the cause of the swelling of the joints was found to lie in effusion of blood with excess of synovia. Dr. Legg, in his treatise, was unable to find any such cause for the joint affection in any well-recorded case. In the present case there was, in addition to these changes, evidence of long-standing inflammation of the knee-joint. He had pursued for some years the following treatment of the disease, founded upon the pathological basis he had laid down: Every month, or oftener, some mercurial, followed by sulphate of soda, in order to control the tendency to plethora. The latter should also be given once every week, and both should be repeated at other times whenever the patient appeared to be fuller of blood than normal. The diet should be rather dry, with a considerable proportion of white fibrinous meat, and plenty of open air exercise should be taken, with the greatest care to avoid mechanical injuries.

Mr. CHRISTOPHER HEATH said he remembered the boy as a patient under his care. The rest in the hospital did him good. It was, however, rather curious that two instances of such a rare form of malady should be in the hospital at the same time, for at the present moment under his care there was also a patient all the male members of whose family were bleeders. He had carefully traced the family history in this case, and it was reported in the *British Medical Journal* for January 11, 1868. The female members of the family did not suffer, but they transmitted the affection to their male offspring. In the case of the boy under his care there was also some local infiltration of blood, but it seemed to be more superficial than in Sir W. Jenner's case. The tendency to bleed in his patient could only be overcome by continuous irrigation with cold water. Internally he gave iron and hydrochloric acid. As a result of this tendency to bleed, all the males of the family had died out; only the females were left alive.

Mr. Howard Marsh had seen four or five such cases among children. In all, or almost all, of these the joint affection was present, but there had been no means of determining its nature. In one instance the elbow-joint had been destroyed, probably as the result of effusion. As a rule the joints resembled rheumatic joints.

The President did not think that iron given internally did much good in these cases. When relief had been afforded to the system by bleeding, almost anything would stop it. Locally matters were quite different; there he thought that iron was of the greatest value. If the bleeding came from the bowel, it was generally from the lower part of the rectum, to which the iron solution could be readily applied.

Dr. Greenhow knew of one family which had completely died out from this affection, yet there was no family history of bleeding. Two died under his cognizance; one from bleeding at the nose in whooping-cough, the other from bleeding after the removal of a tooth.

Sir W. Jenner said he had seen bleeding from the socket of a tooth promptly relieved by crystals of perchloride of iron.

After some remarks by Mr. Mahomed on the condition of the vessels,

Dr. Greenfield said he had seen plastic exudation in the bronchi in two cases where death had followed hemorrhage.

Sir William Jenner, in reply to Dr. A. P. Stewart, said that there had only been one subcutaneous injection of ergotine (four grains). He also observed that Professor Rheinkens, of Brussels, whom he had seen, and who had recommended regular bleeding to keep off the malady, had had five cases; all of these patients were now dead.—*Lancet*, Nov. 18, 1876.

18. *Phosphorus in Leucocythæmia.*—The startling results announced by Dr. Broadbent, and afterwards by Dr. Wilson Fox, as having resulted from the administration of phosphorus in well-marked cases of splenic leucocythæmia has induced other practitioners to try that treatment. At a meeting of the Clinical Society of London, Sir WILLIAM JENNER read brief notes of three cases of leucocythæmia treated by phosphorous. The cases had occurred in private practice. The first was that of a barrister seventy-one years of age, first seen by Sir William Jenner on July 31, 1875. The spleen reached two fingers'-breadth below the umbilicus, where its notch could be felt. The temperature was 100°, and the white corpuscles were extremely numerous. On November 2, the spleen reached four fingers'-breadth below the umbilicus; the white corpuscles were as numerous as before. He had been taking, in the interval, three grains of phosphorus pill three times a day, and for one week twice a day. He had lost flesh. Temperature 100°. Death took place in December. The second case was that of a lady thirty-eight years of age, who presented all the usual symptoms of splenic leukæmia. There was a large excess of white corpuscles. She also took three grains of phosphorus pill three times daily. The temperature ranged from 97.5° to 101°. She gradually got weaker, and died on July 26. The third case was that of a married lady, aged twenty-seven, who consulted Sir W. Jenner early in June. This was another marked case of splenic leucocythæmia. The morning temperature was natural; evening, 100°. The same treatment was pursued as in the other cases, except that in July, at Dr. Broadbent's suggestion, capsules containing phosphorus were substituted for the pills. There was then not much improvement. The temperature was 100°; night-sweats less profuse; but the epistaxis was more abundant, and the white corpuscles had not diminished in size. On November 8, Sir W. Jenner again saw her. She had now been taking phosphorus ($\frac{1}{50}$ gr.) in capsules since July 15. The spleen had continued to enlarge; epistaxis occurred at rare intervals, but she complained of extreme giddiness on movement. The white corpuscles were at least as numerous as the red. Sir W. Jenner explained that he had furnished these outlines of cases occurring in his practice as embodying his experience of the phosphorus treatment.—*Lancet*, Dec. 2, 1876.

19. *The Blood in Anæmia.*—Considerable attention has been paid of late to the microscopic examination of bood in various diseases. The accurate method of counting the number of blood-corpuscles after dilution with a definite quantity of serum, etc., will doubtless prove very valuable; but M. Hayem has pointed out (Société de Biologie, November 4) that in anæmia this is only half the inquiry. In anæmia we have to do with the altered ratio between the number of the corpuscles and what may be called the "colour-richness" of the blood—in other words, the quantity of hæmoglobin. To estimate the latter, M. Hayem has used a microscopic cell of known dimensions, alongside which he places a wafer, the tint of which is equal to that of the blood richest in corpuscles and colour. A scale is obtained, in which a given number of corpuscles corresponds to a given colour. Having given the number of corpuscles and the "colour-richness," it is easy to determine the value of each corpuscle. In the normal state this value is found pretty constant. M. Hayem does not find any marked difference in the colour-richness of the blood of the two sexes; but he finds a very marked difference between the adult and the new-born child in this respect. In the latter the real value of the corpuscles is greater than in adults. This explains why there is a smaller number of corpuscles. In chronic anæmias the real value of the blood is very inferior to that which is observed in the normal state. But in extreme anæmia the corpuscles undergo a notable hypertrophy, and in general gain in volume what they lose in number. Thus

the real value of the corpuscle tends to approach the normal state, or even go beyond it. M. Gubler stated that amongst all the cachexias he had only observed the hypertrophy of the corpuscles, with diminution in their number. in Addison's disease. To this M. Hayem replied that the above held good of all anæmias, whatever their origin, if only the anæmia were severe. It is greatly to be desired that the details of method may be explained, and these results tested by other observers.—*Med. Times and Gaz.*, Dec. 2, from *Gazette des Hôpitaux*, Nov. 4, 1876.

20. *Treatment of Acute Rheumatism by Salicin.*—Dr. T. MACLAGAN some time since (*Lancet*, March 4th and 11th, 1876) called attention to the beneficial action of salicin in acute rheumatism, and gave the result of his experience as follows: "1. We have in salicin a valuable remedy in the treatment of acute rheumatism. 2. The more acute the case, the more marked the benefit produced. 3. In acute cases, its beneficial action is generally apparent within twenty-four, always within forty-eight, hours of its administration in sufficient dose. 4. Given thus at the commencement of the attack, it seems to arrest the course of the malady as effectually as quinine cures an ague, or ipecacuanha a dysentery. 5. The relief of pain is always one of the earliest effects produced. 6. In acute cases, relief of pain and a fall of temperature generally occur simultaneously. 7. In subacute cases, the pain is sometimes decidedly relieved before the temperature begins to fall; this is especially the case when, as is frequently observed in those of nervous temperament, the pain is proportionally greater than the abnormal rise of temperature. 8. In chronic rheumatism, salicin sometimes does good where other remedies fail; but it also sometimes fails where others do good."

In the number of the same journal for Oct. 28th, he states that further experience has confirmed the accuracy of the conclusions. In not one case has he found salicin fail to produce a speedy cure of the disease. He recommends, now, however, it to be given in larger doses. Fifteen grains every three or four hours he considers a medium dose for an acute case, but it is well to give 20 or 30 grains every two hours, as the best way to gain the full and speedy benefit of the remedy is to saturate the system as quickly as possible. In very acute cases, he gives the above dose every hour until the pain is relieved. "With relief of pain, sleep returns, and the hourly dose cannot be adhered to. But it is well to give twenty grains, at least, every two hours during the day, till the temperature is down to the normal. For a week afterwards the same dose should be given four times a day.

"Salicin is an excellent bitter tonic—in my experience as good as quinine, and not apt to disagree as the latter is. I have always found cases of acute rheumatism treated by it convalesce very rapidly; treated in the old way, convalescence from that disease is a slow and tedious process."

The following are his conclusions with regard to the action of salicin on the cardiac complications of acute rheumatism:—

"1. That, given sufficiently early and in sufficient dose, salicin prevents these complications.

"2. That its free administration is the best means of staying their progress after they have occurred.

"3. That such general treatment does not exclude the usual local measures —leeching, poulticing, etc.

"4. That the beneficial action of the salicin on the heart ceases when the temperature falls to the normal.

"5. That salicin is powerless to remove the effusion which remains after the fever has ceased. (To touch the gums with mercury, slightly but quickly, I regard as the most hopeful means of attaining this end.)

"It is right that I should add that my experience of salicylic acid leads me to regard it as having much the same action as salicin, as an antipyretic and antirheumatic. All that I have said of the alkaloid I believe to be equally applicable to the acid.

"The advantage of the former is that it is an excellent bitter tonic, and never causes troublesome symptoms; except in some rare cases such tinnitus aurium as results from a two- or three-grain dose of quinine.

"The disadvantage of the latter is, that it generally causes irritation of the throat, and frequently induces sickness; in one case I found it give rise to troublesome irritation of the bowels."

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21. *Cold-Bath Treatment of Enteric Fever.*—Dr. John McCombie, in an article on this subject (*The Practitioner*, November, 1876), gives the following as his conclusions: "Whilst we are unable to give our assent to the opinion that cold water is omnipotent in the treatment of enteric fever, we consider it a valuable addition to the therapeutics of this disease. From the simplicity of its administration, from the absence of danger in its use in the majority of instances, and from the beneficial effect derived from the reduction of the temperature and the production of sleep, we think that it is far from having attained that position amongst the therapeutics of this disease which it deserves; but we do not hesitate to affirm that there are other agents of great, and in some cases and under certain conditions of greater value, and that the treatment of enteric fever has not yet resolved itself, as certain German authorities would have us believe, into the use of the thermometer and the cold bath."

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22. *The Relation of Algous Vegetation to Malaria.*—The microscopical investigation by Dr. Lanzi, of Rome, of the fauna and flora of the marshes in the Roman Campagna, and of those of the Pontine Marshes, has led to the discovery of a peculiar alteration which the algæ undergo in these localities. Dark granules are found embedded in the endochrome or the chlorophyll of the algæ cells; and as the algæ die these granules become more and more abundant, until they completely fill the cells, and the algæ no longer appear green under the microscope, but black, while at the same time they pass over into a state of putrefaction. This process, which Signor Lanzi has carefully watched in his aquaria, occurs every year on a large scale in the Roman Campagna. The swamps which form during the winter are covered in the spring with a very abundant growth of algæ. In the summer, when the water dries, large surfaces of country are covered with a continuous layer of decaying algæ. In the autumn they die and decay also on the surface of any water that still remains, and everywhere the microscope reveals in their *débris* the existence of the above-mentioned dark-coloured granules. According to Lanzi's view, these granules possess the properties of a ferment. They are found abundantly disseminated in the dust of the Roman Campagna, or can be freely developed out of it by cultivation. Lanzi considers that they are identical with the pigmented spherobacteria of Cohn and the *Bacteridium brunneum* of Schroeter. Now, the pigment-granules which are found in the liver and spleen of persons suffering from malarial cachexia are identical in their properties with those which develop out of decaying algæ; and Lanzi strongly maintains the identity of the so-called "malaria melanine" of pathologists with the vegetable granules. He has succeeded, indeed, in growing zoöglœa-like vegetation from the pigment of malarial livers. The great carrier of these granules appears to be the wind, which diseminates them with the dust throughout the atmosphere of the Campagna district.

Signor Terrigi, who assisted Dr. Lanzi in his microscopical observations, made use of special apparatus to determine the vertical elevation above the surface of the ground which the granules can reach, and he found it to be about fifty centimetres—a height at which the wind could easily take them up. The remedial measures which Signor Lanzi suggests to subdue the malaria of the Roman Campagna consist in drawing off the water from the larger swamps, in draining wet land, in planting trees, and in adopting a system of scientific agriculture.

The *Eucalyptus globulus* appears not likely to answer the expectations which were at first formed of it, for it can only live in specially sheltered situations, and is not hardy enough to grow indifferently in any part of the Campagna.—*Med. Times and Gaz.*, Dec. 2, 1876.

23. *Nitrite of Amyl in Ague, etc.*—Surgeon W. E. SAUNDERS extols (*Indian Medical Gazette*, Nov. 1876) the efficacy of nitrite of amyl in ague, etc., in which its effects seem to have been most remarkable. He uses the "nitrite of amyl mixed with an equal part of oil of coriander, to render it less volatile, and at the same time to cover what is, to my sense of smell, a most disagreeable odour. I find it acts better in this way, owing, no doubt, to a more gradual and complete action, much less being lost during inhalation.

"It certainly is the most powerful diaphoretic I have ever seen; and I now use it in all cases of fever to produce diaphoresis, which it does, as a rule, in a few minutes."

He adds, "I do not mean to say that quinine should not be used in these cases, for there is ample proof that it tends to check the return of the attacks, and removes to some extent the septic condition of the blood induced by the malarial poison whatever its nature be; and this more especially if small doses of opium be combined with it.

"In no case did the amyl fail to remove the attack in about one-third the usual time, and in most cases the fever did not again return. The method of administration I adopt is this: Four drops of the mixture, or two of amyl, are poured on a small piece of lint, which is given into the hands of the patient, and he is told to inhale it freely. He soon becomes flushed, and his pulse and respiration are much accelerated; and when he feels warm all over the inhalation is discontinued, as the symptoms continue to increase for a short time afterwards. A profuse perspiration now sets in, which speedily ends the attack; in some cases, however, the cold stage merely passed off without any hot or sweating stage."

24. *Chloral in Infantile Convulsions.*—LÖWENSTAMM (*Medicinish-Chirurgisches Centralblatt*, No. 35, 1876) speaks of numerous instances in which he has tested the efficacy of this drug in convulsions; and he gives one case in detail. The patient was the third child of a highly nervous woman, who had lost her first and second children from this affection at about the same age as that at which this one was attacked. At the thirteenth day, twitchings of the eyelids and of the angles of the mouth were first observed; these rapidly developed into more general convulsions, which were repeated, later, every ten minutes. The infant was first seen on the sixteenth day of life. He showed then strong twitchings of the face, trismus, clonic spasms of the limbs, spastic contractions of the thumbs, and contracted pupils; the fit terminated, at the end of five minutes, in profuse perspiration. Two grains of chloral-hydrate were given every hour. The convulsions diminished in frequency and intensity, and, on the following day, he was free from them. As the case was considered to depend upon dyspepsia, an antacid in the form of *magnesia usta* was then given, and no recurrence took place.—*London Medical Record*, November 15, 1876.

25. *First Dentition in its Causal Relation to Disease.*—Dr. LEDERER points out in this paper (*Allgemeine Wiener Medicinische Zeitung*, May 2 and 9) the slender grounds upon which many disorders of childhood are attributed to dentition. He remarks that the most powerful factor in the retardation of the teeth is rickets, and that it is precisely in rickety children that these disorders—bronchial and intestinal catarrh, laryngismus stridulus, convulsions, etc.—are most frequent. During his five years' connection with the Vienna Children's Hospital, he noted ninety-six cases of laryngismus, and of these, ninety-two were in rickety subjects. He further quotes Luzinsky as having observed 504 cases of pulmonary and intestinal affections in rachititic children who showed no sign of teeth. Dentition, moreover, gives no causal indication for treatment; the conditions are far more effectually dealt with according to general rules. The theory is therefore, useless; but it is even worse than useless, because it frequently leads mothers to defer applying for medical assistance until the case is too far gone, and it engenders in others a carelessness which is most prejudicial to the patient's welfare. Dr. Lederer, therefore, without denying its occasional importance, believes that it is rarely anything more than

an exciting cause, which, without special predisposing influence, would be powerless.—*London Med. Record*, Nov. 15, 1876.

26. *On the Use of Sulphate of Iron in Diphtheria.*—In an article in the *Gazzetta Medica delle Calabrie* for January (abstract in *Annali Universali di Medicina*, August), Dr. Fera asserts that he has treated eighty cases of diphtheria successfully, without one death, by the local application of powdered sulphate of iron. He describes the mode of treatment in the following terms. A brush is made of horsehair, which is cut at a distance of 3 or 4 millimetres (about .12 or .16 inch) from the handle. The brush is then dipped in very finely powdered sulphate of iron, and can be easily applied to the diphtheritic patches on the tonsils, pharynx, and velum pendulum palati, or elsewhere. Sometimes the brush is applied energetically to the diphtheritic area, until it bleeds freely; the pearly colour of the diphtheritic exudation at once disappears, and the surface becomes red, or some portions of the area may be covered with mucus, which is detached by the next application. The application is made twice daily. After the first or second, the febrile temperature is gradually lowered; the enlargement of the cervical glands is reduced and entirely disappears; and in three or four days the patients are well.—*London Med. Record*, November 15, 1876.

27. *Carbolic Spray in Bronchial Catarrh.*—Dr. Moritz communicated to the St. Petersburg Medical Society the results of his trials of carbolic acid spray in various forms of bronchial catarrh, relating several examples of its utility. Since he had much to do with this spray he found that bronchial catarrh, to which he was formerly much subject, either ceased to appear or was soon cut short. In as small a room as possible he causes half a pound of a 2 per cent. solution of the acid to be sprayed per diem, the night being the time especially to be preferred.—*Med. Times and Gazette*, Dec. 2, from *St. Petersburg Med. Woch.*, Nov. 11, 1876.

28. *Phthisis with Rapid Contraction of a Cavity.*—Dr. Theodore Williams read to the Clinical Society of London (Nov. 10), the sequel of a case of phthisis with rapid contraction of a cavity, which he had communicated to the Society in 1871. At that time some eminent fellows of the Society had expressed doubts as to the existence of a cavity, in spite of the physical signs narrated, but the death of the patient, in January, 1875, and post-mortem examination, cleared up all doubts. The patient, a widow, aged fifty-three, was admitted into the Brompton Hospital, in April, 1871, with a history of pleurisy of twelve years' standing, and phthisis of one year's duration. Dulness was detected over the whole left side, cavernous sounds from the first to the third rib, and ronchi and râles below, and also in the right lung. Subsequent examinations showed a gradual diminution of cavernous sounds, and in July, 1871—*i. e.*, three months after admission—they had entirely disappeared. No marked displacement of adjacent organs was then to be found; but a few months later the heart and stomach were drawn up, the right lung drawn across the median line, and some shrinking of the side was visible. In 1872, she survived a severe attack of capillary bronchitis, but died of congestion of the right lung in 1875, the physical signs before death indicating great shrinking of the left lung. The autopsy showed an old puckered cavity, about the size of a date stone, near the apex of the left lung, underlying the portion of chest-wall where the cavernous sounds had formerly been audible. The bronchus leading to the cavity was blocked and obliterated, and the greater part of the lung was in a state of fibrosis. The right lung was drawn across the median line, and was partly emphysematous and greatly congested. The heart was drawn up, and the left chest measured an inch and a half less than the right in circumference. Dr. Williams remarked that in this case each step of the contractile process had been noted by physical signs, and the post-mortem examination thoroughly confirmed the diagnosis. The fibrosis process may have had its origin in the old attack of pleurisy, and was the means of limiting the cavities, and arresting the disease. The cavity sounds were quite distinct, and he could not understand the existence of a

cavern having been doubted. Cavities were overlooked during life, even by accomplished auscultators; but this arose either (1) from the bronchus leading into them being blocked; (2) from their being small and deep-seated; or, (3) from development of emphysema in the neighbourhood. On the other hand, consolidations should not be mistaken for cavities—the difference in the expiration note, the succussion sound, the gurgle, and examination of the sputum, being easy means of distinction. Dr. Williams remarked, in conclusion, that far more cavities were overlooked than were erroneously diagnosed.—*Lancet*, Nov. 18, 1876.

29. *Thoracic Tumour simulating Aortic Aneurism.*—Dr. FINNY (*Dublin Journal of Med. Science*, Nov. 1876), in presenting to the Pathological Society of Dublin the specimens from a case of thoracic tumour, said: The diagnosis of intra-thoracic aneurism is, at all times, a matter of great interest, and at no time a matter of ease. The present case illustrates this, and also presents a new difficulty in the diagnosis on which sufficient stress has not been heretofore laid. These specimens were taken from the body of a Frenchwoman, aged twenty-two years, who was admitted into the City of Dublin Hospital on the 6th of December last. Six weeks before her admission she had been delivered of a child in Sir Patrick Dun's Hospital, after a labour more than usually difficult. It was followed by pain in the right side of the chest; and for these pains she sought admission into the hospital. It was then found that she had pleurisy without effusion on the right side. Her chest was carefully examined; no percussion dulness was observed anywhere abnormally, but a loud systolic bruit was heard in the neighbourhood of the pericardium, towards the base of the heart, which was unaffected by change of posture. Her pulse was small and feeble, and alike in both radials.

On the 18th of December there was noticed a visible pulsation close to the left side of the sternum, in the second intercostal space. Dulness was noticed over the same region, while the beat of the heart was in its normal position. The left radial was noted as markedly smaller than the right, and the left pupil was observed to be larger than the right. Ten days later, in addition to those symptoms, she had profuse perspiration, which was confined to the left side of the face and forehead. On the 1st of January, when she came under my care, Dr. Benson suggested the possibility of the existence of thoracic aneurism, at the same time suspending his opinion for further observations, as the age of the patient, the absence of any history of syphilis, or of direct violence to the chest, or of the habit of intemperance, discountenanced such a view.

She was, on January 1, seemingly in very good health, plump and well-looking, and complained of nothing but pains occasionally in the right side of the chest. She had no cough or fever, and with the exception of the thoracic pulsation and murmur she seemed quite well. During the next three weeks she was carefully watched and examined every day by myself and some of my colleagues, and was also seen by several other medical men, on whose judgment and opinions I lay great stress. After many consultations and much hesitancy we were unanimous in coming to the conclusion that it was a case of thoracic aneurism, and our idea was that it was a case of false aneurism of the left side of the ascending portion of the arch, which had bulged forward, and was causing pulsation in the second intercostal space. The shape and position of the primary and secondary sacs was further supposed to be such that the blood was diverted from passing into the left subclavian artery; and thus the small pulsation on that side was accounted for. The points on which this diagnosis was based are those usually relied on as signs of thoracic aneurism—viz., the state of the patient's general health, the existence of an intra-thoracic tumour, and the evidences of pressure. The plump, healthy look of the patient, and the absence of all constitutional disturbances, such as cough, night-sweats, or hectic, excluded the idea of cancer, or tubercle, or of enlarged glands which might be associated with those diseases. The tumour was small but very distinct at the second intercostal space. The pulsation was diastolic or single, and was rendered visible by placing pieces of paper or the stethoscope over it; at the end of the pulsation the impulse seemed very distinctly vibratile. It gave one the sensation of a large sac filled with a great deal of fluid, and very close to the surface of the skin.

The dulness on percussion—and this was the only point to render the diagnosis doubtful—extended over a larger area than the impulse corresponded to. It extended from the middle of the sternum, at the level of the third rib, to the left sterno-clavicular articulation, and for two inches from the end of the clavicle, and then in a straight line to the third rib. Outside these limits the chest was perfectly normal on percussion. The murmur was heard over the superior part of the pericardial region, and was intensified at the lower edge of the clavicle. Its character was loud and ringing, and it gave the idea of being caused by some large cavity. It was not heard in the carotids, or down the spine. The evidence of pressure consisted in the absence of vesicular or other breathing in the space where dulness existed, while over the whole of the left lung the respiratory murmur was more feeble than natural, and was also much less than in the right lung, where the respiratory murmur was puerile in character. Just outside the region of dulness on the left side, the inspirations and expirations were prolonged, and a sound could be heard as of air whistling through some obstruction. The idea of pressure on the bronchial tubes was further confirmed by finding the whole of the left side comparatively less filled with air than the right side. Measurements of the chest were taken on the 1st of February, and the diagnosis was still further confirmed by finding that the left side was two inches smaller than the right at the xiphoid, and two and a half inches above the mammæ. The unilateral nature of the foregoing signs, and the absence of all fever or other constitutional disturbances following a tedious delivery, presented a group of signs and symptoms which, on the one hand, excluded the possibility of phthisis, or a cancerous tumour, and pointed on the other to the diagnosis of a rapidly growing false aneurism of the aorta. This opinion was strengthened in the further progress of the case by the very variation of the signs and symptoms, such as is known to occur in aneurismal tumours. For example, the pulsation which, on the 18th of January, was very distinctly felt and seen, was, on the 26th, much less evident, while the left radial pulsation had become much more full and distinct. On the 1st of February she had a great deal of cough, and evidences of inflammatory softening of the left lung set in. These signs were believed to be due in part to the imperfect expansion of the lungs, produced by pressure on the bronchial tube, and in part to pulmonary phthisis, which, Dr. Stokes states, is one of the commonest complications of aneurism. On the 12th of February the softening and breaking down of the lung was more evident, as over the whole of it muco-crepitant râles could be heard. On the 18th of February spasmodic laryngeal cough set in, and continued incessantly for thirty hours, day and night. This cough was of a shrilly barking character, and the "stridor from below" (Stokes) could be heard at the fourchette of the sternum; but neither at that time, nor at any other, was there aphonia. Ten days later, long after the laryngeal symptoms had passed away, dysphagia set in, and the patient complained of obstruction in the throat, so as hardly to swallow fluids. In its turn this symptom passed away, and half an hour before her death she was able to drink freely a large quantity of claret and water. She sank with the usual symptoms of asthenia and exhaustion, and died on the 6th of March. The autopsy was made eighteen hours afterwards and was conducted by myself. On opening the abdomen we found a good example of cystic disease of the kidneys, both kidneys being well mottled with these cysts. Some of them are so large as to admit the first joint of the finger. It is probable that this cystic disease might originally have been congenital, and that after having been for some time in abeyance, afterwards became developed. I may mention that this cystic disease has not been known to be developed in adults at an earlier age than thirty years, and that Virchow and Föster, and others, believe the origin of it to be a congenital change due to obstruction of the uriniferous tubules and subsequent dilatation of them into pouches.

On opening the thorax, which by measurement after death confirmed the measurement taken before death, instead of an aneurism, which we expected to see, we found that there was dry adherent pleuritis on the right side, and a large mass of what turned out to be thickened pleura, with a vast quantity of lymphatic glands occupying the space where dulness existed, and lying upon and between the vessels in this region. The left innominate vein shows the position of the parts. These glands are in great numbers and enlarged, and lie between the pleura and the pericardium, engaging the course of the left phrenic nerve. Higher up we found a very large gland, the size of a large nut, immediately above the pulmonary artery, and engaging the branches of the pneumogastric nerve, the recurrent laryngeal branches of the pneumogastric nerve being pushed up by it, while the pulmonary and the cardiac branches are also engaged. This other mass of glands, making a large bunch, lay on the thin edge of the lung, which was pressed to the outside. On opening the lung we found in the apex a distinct chamber lined with a pyogenic membrane, large enough to receive a small orange or large walnut, while the rest of the lung was in various stages of softening.

Examination of the heart showed the right auricle and the right ventricle perfectly healthy. The pulmonary artery was in a state of dilatation; the pulmonary valves were thickened with fibrinous deposits, but competent to prevent regurgitation, and on looking closely there was found a very small fourth valve, which fitted in between the anterior and left valves, which is perhaps the commonest deformity found in connection with the right side of the heart.

Further than this there was no evidence of organic disease of the valves except a slight stenosis of the aortic orifice. Turning to the aorta, it presents the usual appearance for the first two inches and a half; and on the junction of the transverse and descending portions we find that it is constricted or pressed upon seemingly by an enlarged gland, but is free from any atheromatous disease. Immediately beyond the orifice of the subclavian artery, just at the junction of the duct of Botalli (which is filamentous) it is constricted so as hardly to admit my little finger. By way of contrast I have brought portions of the thoracic aorta, taken, one from a small old man, and the other from a small woman, in order to show the difference between the ordinary size of these vessels and what we found in this patient.

I believe the cause of the pulsation to have been the dilated condition of the pulmonary artery conveyed through the glands; the pressure of the enlarged bronchial glands on its branches and on the aorta gave rise to the thrill and vibration, while the murmur, I believe, was produced by the roughness of the semilunar valve, and to have been intensified by the delay the blood found in passing through the pulmonary and aortic arteries. The loud ringing character of the murmur was due to the neighbouring cavity in the lung. The larynx, which I here exhibit, is perfectly healthy, and free from any disease, and thus the laryngeal cough, dyspnœa, and stridor, can only be accounted for by the pressure of the enlarged glands on the recurrent laryngeal nerve.

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30. *Symptomatic Hepatic Fever from Occlusion of Hepatic Duct.*—The following remarks on this subject are abstracted from a course of lectures which M. Charcot has recently delivered at the Faculté de Médecine of Paris, on diseases of the liver, and which are characterized by the same power of observation and analysis so distinctive of the teaching of this eminent physician.

As a consequence of obstruction of the common duct, the biliary ducts in the substance of the liver become greatly dilated, and after a while suffer changes, of greater or less severity, in their walls and contents. The interlobular canals partake comparatively very little in the dilatation.

The change usually discoverable within the principal biliary passages consists in the disappearance of their cylindrical epithelium, a circumstance not found in the interlobular canals. Mostly the dilated ducts contain a viscous bile, mixed with mucous flakes and débris of columnar epithelium, and, sooner or later, biliary sand. But it happens occasionally that, while the small biliary ducts in the hepatic substance are charged with bile, the large biliary canals are filled with a mucous liquid, destitute of the least trace of pigment or of biliary acids. As a rarer condition, the ducts contain a muco-purulent fluid, and in such case the lesion may be described as one of suppurative angiocolitis.

The inflammatory lesions, however, are not confined to the ducts, but commonly extend, as a hyperplasia, to the capsule of Glisson. Now and then, they give rise to the local formation of pus in the same structure, with the consequent formation either of a large abscess or of numerous disseminated lenticular abscesses.

Another result of the obstruction of the common duct, arising from pressure of indurated tissue or of the distended biliary ducts, is arrest of the intra-hepatic circulation and stasis in the vena porta, with consequent ascites, hypertrophy of the spleen, and gastric and intestinal hemorrhage. In some cases of gastro-intestinal hemorrhage the bleeding proceeds from ulcers of the mucous membrane of the stomach. In other instances of hemorrhage, such as that from the nose, or from leech-bites, the bleeding appears referable to alterations of the blood or of the bloodvessels; and this alteration has been attributed to the solvent action of the biliary acids retained in the blood. M. Charcot, however, quotes some experiments of Vulpian to show that this explanation is inadmissible, inasmuch as the quantity of such acids when retained cannot be sufficient to produce the effects referred to. The same objection holds good to the attributing to this same cause the weakened action of heart with its results, the formation of clots in the auricle and hæmoptic infarctus in the lungs, and the occasional nervous accidents terminating life in the form of convulsions and coma.

But there is another symptomatic condition, known as "symptomatic" intermittent fever, which occurs at times, without any trace of actual hepatic colic, upon calculous obliteration of the common duct and upon intra-hepatic biliary lithiasis, and, in fact, as a consequence of occlusion of the biliary duct from any cause, as, for instance, fibrous contraction, or pressure upon it of cancer in the head of the pancreas.

The anatomical condition most favourable to the outbreak of this fever appears to be the presence of muco-pus mixed with stagnant bile in the biliary passages. It is, nevertheless, true that suppurative angiocolitis may exist without the occurrence of this intermittent fever; and, on the other hand, that this fever may arise when, rightly speaking, no suppuration is found in the biliary ducts. And it is equally possible that secondary hepatic abscesses may be wanting when this fever is present. To account for such ambiguous phenomena, M. Charcot concludes that there must be present, in the dilated and inflamed ducts, a septic principle, or "pyretogenic" poison, the product of changes occurring within the biliary liquid itself.

But whatever be the exciting agent, an analysis of twenty cases shows that neither jaundice nor hepatic colic, although not infrequent, are its ordinary concomitants. The following are its phenomena: 1. The onset is sudden, commencing with a rigor, followed by heat and sweating, just as in an ordinary case of intermittent fever. Of the three stages the sweating is most prone to fail. 2. The non-febrile periods are very frequently clearly marked, and the accessions regular in their occurrence, simulating the quotidian, the tertian, or the quartan type. But to this rule many exceptions obtain. 3. M. Regnard has laid it down, though only from a single case observed, that it is a characteristic sign of this hepatic fever, distinguishing it from true fever, that the specific gravity of the urine is reduced, and that leucine and tyrosine are present. M. Charcot, however, considers that the reduction in the proportion of urea is no special feature of the fever, but a result of merely damaged hepatic function. 4. As happens with symptomatic fevers generally, the accessions of hepatic fever take place in the evening, instead of the morning, as is the rule in idiopathic fever. 5. Hepatic fever is for the most part chronic. For instance, it may endure two or three months, with intervals, in which no accessions occur, of eight, ten, or fifteen days. 6. A favourable issue is possible—M. Henoch has reported one instance.

This hepatic intermittent fever is separable from a form of fever coming on at times in the course of hepatic colic. Both alike are probably due to a similar pathogenetic cause—a septic matter derived from altered bile. The hepatalgic fever may be presumed to be set up from the passage of the gall-stone, which may either lacerate the mucous membrane of the biliary duct, or otherwise so increase the pressure in its interior as to facilitate absorption of the septic material. Or, again, the passage of the calculus may set up acute inflammation, the products of which may mingle with the bile and bring about, after the manner of a ferment, a very rapid alteration of its constitution. In support of this hypothesis it may be urged that the hepatalgic rigors scarcely ever happen except in case of patients a long time exposed to inflammatory lesion of the biliary duct; a condition of things favourable to the formation of a morbid material. Further, the rigor is sometimes the prelude to a series of febrile paroxysms, of greater or less regularity, but not without the recurrence of hepatic colic; and this phenomenon supports the second clause of the hypothesis. Of the intermissions of hepatic fever no explanation is at hand.

In the same lecture, M. Charcot proceeds to point out the intimate analogy between the phenomena of hepatic fever and those of "urethral" or "uro-septic" fever, as seen in persons suffering with retention of urine consequent upon bladder and prostatic disease, and he takes occasion to describe the morbid renal condition known as "surgical kidney."—*Brit. and For. Med.-Chir. Rev.*, Oct. 1876, from *Le Progrès Medical*, Aug. 1876.

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31. *Primary Cancer of the Spleen.*—Of this pathological rarity there are few unequivocal cases on record, but among them may, perhaps, be classed, one that was brought before the Société Anatomique in its April session, and recorded in *Le Progrès Médical* for the 2d instant. The subject of the disease was a male, fifty-one years of age, admitted into La Charité, under the care of M. Woillez, with a history and some of the symptoms of cancer of the stomach. After death, however, the stomach and the whole intestinal tract were found to be healthy; but the spleen and lumbar glands were extensively diseased. The former organ measured eight inches in each direction, was of firm consistency, and smooth surface; but on section it was found to be pervaded with firm yellowish-white nodules of cancer, which together far exceeded the amount of parenchyma remaining. Some of the nodules were breaking down in the centre. The lumbar glands were also infiltrated, and formed a lobulated mass around the abdominal aorta. The liver contained a few miliary nodules, and was adherent to the diaphragm, whilst a solitary cancerous nodule was present on the corresponding pleural layer. Other secondary growths were found in the sternum, ribs, and vertebræ. The authors of the communication—MM. AFFRE and MOUTARD-MARTIN—while acknowledging the rarity of primary splenic cancer, point out that the disease was more advanced in the spleen than in the lumbar glands—the only other place in which it could be considered to have arisen; and they particularly insist upon the absolute freedom of the stomach and rectum from the disease. No mention is made, however, of the microscopical characters of the growth; an omission of considerable importance, since it is highly probable that it was of the nature of lymphadenoma, in which case the extensive implication of the spleen, as contrasted with the liver, and its association with the tumours, would not be so rare an event as the authors would have us believe.—*Lancet*, September 23, 1876.

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32. *Peritonitis in Children.*—Dr. KERSCH, of Prague, in commenting (Betz's *Memorabilien*, vol. xxi. Heft 2) upon the difficulty of determining the presence of peritonitis in children, concludes that the character of the breathing furnishes an almost pathognomonic symptom. Every deep inspiration produces pain in the hypochondria, and the breathing is therefore shallow and frequent, and is of the thoracic type. There is no impediment to expiration, and consequently the child can still cry vigorously. The characteristic breathing, then, consists of a long expiration followed by a series of extremely short inspirations, and, as a rule, each expiration is accompanied by a cry of the same duration. If this symptom be associated with a drawing up of the limbs, the diagnosis may be considered certain. The prognosis is more favourable than in adults, at least as regards life; but when it occurs in girls between the ages of five and eight, the author believes that it is an important factor in the production of subsequent sterility; indeed, all the cases that he has

known have had this result. Ten cases which were attacked between the ages of five and fourteen years, have been watched by the author. All have now been married some years, and all are childless. In the treatment of peritonitis in childhood, if the ordinary measures fail to reduce the quantity of fluid, Dr. Kersch employs puncture; if the fluid do not escape readily, he keeps the wound open for some days, or, should this heal prematurely, he makes a second puncture through the scar of the first one.

Two cases are appended. One of these, a girl, aged five and a half years, had been much neglected, and when seen was in a condition bordering on collapse. The ordinary means were tried for a short time, but without effect. Puncture was then resorted to, and was performed in all three times. At the end of two months the child was quite strong and healthy. The other patient, a girl, at fourteen, recovered without puncture. She was treated with large doses of quinine, morphia in weak solution, and cold compresses to the abdomen. She is now twenty-four years old, and has been married six years, but has no children. The author believes the barrenness to be due to the contraction of a layer of lymph which has been deposited upon the ovaries, and the consequent interference with the nutrition of these organs.—*London Med. Record*, Oct. 16, 1876.

SURGICAL PATHOLOGY AND THERAPEUTICS, AND OPERATIVE SURGERY.

33. *The Open Treatment of Wounds.*—Dr. BUROW, of Königsberg, reports (*Archiv f. Klin. Chirurg.*, xx. 1, 1876) the results of 123 operations performed by his father and himself during a period of nineteen years, and treated by the open method. The following are the figures given. There were 123 cases, with nine deaths, *i. e.*, 7⅓ per cent., comprising thirty-three amputations of the thigh with six deaths, or 18 per cent.; twenty-four amputations of the leg with three deaths, or 12 per cent.; and twenty-five amputations of the arm, twenty-nine of the forearm, nine of the foot, and two of the hand without any fatal case These figures furnish a most interesting comparison with those compiled by Paul, Malgaigne, Ashhurst, and others, more especially Krönlein, Volkmann, and Thiersch. Dr. B. supports with sound arguments the character of his statistics, while acknowledging that the figures are small. He gives, in brief, the following as the essentials of the system he follows. In a case of amputation of the breast, he carefully checks the bleeding by the use of silk ligatures, which he cuts off short. The wound is then left absolutely open, being protected from dust and flies by a simple oiled cloth. No sutures or plasters are used. When the first oiled cloth is loosened by suppuration, a second is applied dressed with a simple ointment. When granulations spring up luxuriantly, the cloth is wet with a solution of acetate of alumina. This is the whole treatment. After amputations of limbs, he first ligates the larger vessels before loosening the Esmarch's tube, completing the ligations after removing it. The wound is then left open for half an hour, with the double object of guarding against secondary hemorrhage and of allowing the surface of the wound to ooze with a serous fluid. Then he puts in three sutures, securing them with a loop and not a knot, so as to allow for swelling of the tissues. Two or three strips of plaster are placed between the sutures, and the lower angle of the wound is left wide open for the free escape of discharges. Then by position of the limb and careful watching, it is made sure that the secretions can escape freely. He does a flap operation, insists on the greatest cleanliness on all hands, and never uses sponges a second time.—*Medical Record*, Dec. 16, 1876.

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34. *Sulphite of Soda as a Dressing.*—Dr. MINNICH, of the Venice Hospital, prefers the employment of the sulphite of soda to carbolic or salicylic acid, not